

DT04 Rec'd PCT/PTO 12 JUL 2004

**FAY, SHARPE, FAGAN, MINNICH & MCKEE, LLP**

PATENT TRADEMARK AND COPYRIGHT LAW

1100 SUPERIOR AVENUE

SEVENTH FLOOR

CLEVELAND, OHIO 44114-2579

TELEPHONE (216) 861-5582

FAX (216) 241-1666

E-MAIL: fs@faysharpe.com

Philip J. Moy Jr.  
pmoy@faysharpe.comMARK E. BANDY  
JOSEPH D. DREHER  
CHRISTOPHER B. FAGAN  
JUDE A. FRY  
STEVEN M. HAAS  
MICHAEL E. HUDZINSKI  
RICHARD M. KLEIN  
THOMAS E. KOCOVSKY, JR.  
SANDRA M. KOENIG  
SCOTT A. MCCOLLISTER  
JAMES W. MCKEE  
JAY F. MOLDOVANYIPHILIP J. MOY, JR.  
TIMOTHY E. NAUMAN  
PATRICK R. ROCHE  
MARK S. SVAT  
BRIAN E. TURUNG  
ROBERT V. VICKERSOF COUNSEL  
E. KENT DANIELS, JR.  
RICHARD J. MINNICH  
THOMAS E. YOUNGALAN C. BRANDT  
JOHN P. CORNELLY  
MATTHEW P. DUGAN  
PATRICK D. FLOYD  
COLLEEN FLYNN GOSS  
KARL W. HAUBER  
ERIK J. OVERBERGER  
SUE ELLEN PHILLIPS  
JAMES E. SCARBROUGH  
ANN M. SKERRY, PH.D.  
SCOTT M. SLABYGREGORY S. VICKERS  
JOSEPH E. WATERS  
JONATHAN A. WITHROW  
JOHN S. ZANGHIREGISTERED PATENT AGENTS  
ROBERT M. SIEG  
THOMAS TILLANDER  
MARINA V. ZALEVSKYALBERT P. SHARPE, III  
1959-2001

9 March 2004

Examiner C. Belibel  
European Patent Office  
P.B. 5818 Patentlaan 2  
NL-2280 HV Rijswijk – Pays BasVIA FACSIMILECONFIRMATION COPY VIA INTERNATIONAL COURIERRe: International (PCT) Patent Application of  
HAWK PRECISION COMPONENTS GROUP, INC.  
Entitled: **TOOL RIG FOR COMPACTION OF  
PARTICULATE MATERIAL**  
Inventors: Hinzmann  
App. No.: PCT/US03/00847  
Filed: 13 January, 2003  
Our Ref.: HWKP 2 00008PCT

Dear Examiner Belibel:

This Amendment Under Article 19 is in response to the PCT Written Opinion  
mailed 17 December 2003 for the above-captioned application.**Explanation of Amendments**This Amendment is limited to amending, canceling, and adding claims. The  
Amendment constitutes substitute pages 16-21 and a new page 22. Pages 16-21  
replace original pages 16-20, which set forth the original claims. As the claims set forth  
in this Amendment encompass an additional page, applicant is submitting a new page  
22, which sets forth the Abstract that appeared on original page 21.

Examiner C. Belibel  
9 March 2004  
Page 2

In accordance with the requirements of Rule 66.8(a) that attention must be drawn to the differences between the original and replacement sheets, applicant advises the Examiner that:

- (a) claims 1 and 2 have been amended;
- (b) original claim 3 has been deleted;
- (c) new claims 3 and 4 have been added;
- (d) original claims 4-6 have been renumbered as claims 5-7, with renumbered claims 6 and 7 being further amended;
- (e) claims 8-12 have been retained in their original form;
- (f) claims 13-15 have been amended;
- (g) claims 16 and 17 have been retained in their original form;
- (h) new claim 18 has been added; and
- (i) original claims 18-28 have been renumbered as claims 19-29, with renumbered claims 21-29 being further amended (the amendments to renumbered claims 21, 22, and 25-29 being limited to amending the claim dependency).

Applicant also sets forth below the specific changes that have been made to amended and new claims 1-7, 13-15, and 18-29:

1. A tool rig for the compaction of particulate materials, comprising:
  - a base;
  - a cylinder block disposed on the base;
  - ~~at least two~~ first and second pistons disposed within the cylinder block, wherein ~~one~~ the second piston is being at least partially disposed within ~~one other~~ the first piston; and

first and second supply means for connecting an energy supply to at least ~~one of the pistons~~ the second piston from the inner diameter of at least ~~one of the pistons~~ positions within the second piston to cause the second piston to move independently from movement of the first piston, the first supply means causing the second piston to move in a first direction and the second supply means causing the second piston to move in a second direction opposite the first direction.

2. The tool rig of claim 1, wherein the first and second supply means for connecting an energy supply respectively includes first and second channels defined by a supply component that defines at least one channel at least partially disposed within the second piston.

3. (New) The tool rig of claim 2, wherein the supply component is stationary relative to the base.

4. (New) The tool rig of claim 2, wherein the first and second channels extend through the base.

~~4-5.~~ The tool rig of claim 2, wherein the supply component defines a central bore.

~~5-6.~~ The tool rig of claim 5, further comprising  
~~an additional a third piston disposed within the central bore; and~~  
third supply means for connecting an energy supply to the third piston from a position within the second piston to cause the third piston to move independently from movement of the first and second pistons.

~~6-7.~~ The tool rig of claim 1, wherein the ~~at least two~~ first and second pistons are concentric.

13. A tool rig for the compaction of particulate materials, comprising:  
a base;  
a cylinder block disposed on the base;  
~~at least two~~ first and second pistons disposed within the cylinder block,  
~~wherein one the second piston is being at least partially disposed within one other the first piston; and~~

a supply component disposed in the inner diameter of at least one ~~second~~ piston, that defines at least two the supply component defining first and second channels, wherein one channel provides providing an energy supply to one piston causing the second piston to move independently from movement of the first piston, the first channel providing an energy supply causing the second piston to move in a first direction and one other the second channel provides providing an energy supply to one other piston causing the second piston to move in a second direction opposite the first direction.

14. The tool rig of claim 13, wherein ~~at least two of the first and second~~ pistons are on essentially the same level.

15. The tool rig of claim ~~44~~13, further comprising a third piston, wherein two of the three pistons are on essentially the same level and at least one of the three pistons is on a different level from the ~~at least two~~ pistons that are on essentially the same level.

18. (New) The tool rig of claim 17, further comprising supply means for connecting an energy supply to the third piston from a position within the second piston to cause the third piston to move independently from movement of the first and second pistons.

~~48.~~19. The tool rig of claim 13, further comprising at least one linear encoder disposed in the base.

~~49.~~20. The tool rig of claim 13, further comprising a mechanical stop for at least one of the pistons.

~~20.~~21. The tool rig of claim ~~49~~ 20, wherein the mechanical stop is adjustable.

21-22. The tool rig of claim 20 21, wherein the mechanical stop includes an inner ring and an outer ring, whereby the stop is adjusted by rotation of the outer ring.

22-23. A press for the compaction of particulate materials, comprising:  
a frame; and  
a tool rig for the compaction of particulate materials connected to the frame, including a base, a cylinder block disposed on the base, ~~at least two~~ first and second pistons disposed within the cylinder block, ~~wherein one~~ the second piston is ~~being~~ at least partially disposed within one of the the first piston, and first and second supply means for connecting an energy supply to ~~at least one of the pistons~~ the second piston from the inner diameter of ~~at least one of the pistons~~ positions within the second piston to cause the second piston to move independently from movement of the first piston, the first supply means causing the second piston to move in a first direction and the second supply means causing the second piston to move in a second direction opposite the first direction.

23-24. The press for the compaction of particulate materials of claim 22 23, wherein the first and second supply means ~~for connecting an energy supply~~ respectively includes first and second channels defined by a supply component that ~~defines at least one channel, whereby the channel connects an energy supply to at least one of the pistons~~ at least partially disposed within the second piston.

24-25. The press for the compaction of particulate materials of claim 22 23, wherein the tool rig is integrally connected to the frame.

25-26. The press for the compaction of particulate materials of claim 22 23, wherein the tool rig is removably connected to the frame.

26-27. The press for the compaction of particulate materials of claim 22 23, further comprising electric controls.

27-28. The press for the compaction of particulate materials of claim 22 23, further comprising hydraulic controls.

28-29. The press for the compaction of particulate materials of claim 22 23, further comprising pneumatic controls.

#### **Remarks**

The Examiner's attention is particularly drawn to the amendments to the independent claims (1, 13, and renumbered 23), which now recite first and second pistons disposed within the cylinder block with the second piston being at least partially disposed within the first piston. These claims also recite first and second supply means (or a supply component with first and second channels) for connecting an energy supply to the second piston from positions within the second piston to cause the second piston to move independently from the first piston. Furthermore, the first supply means (or channel) is defined as causing the second piston to move in a first direction, and the second supply means (or channel) is defined as causing the second piston to move in a second direction opposite the first direction.

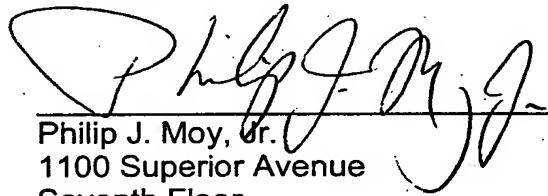
The system disclosed in the primary reference cited in the Written Opinion, DE 40 03 016 (Reitter), does not provide for independent movement of the two pistons and,

Examiner C. Belibel  
9 March 2004  
Page 7

accordingly, teaches away from the system set forth in the amended and new claims presented by this Amendment.

Respectfully submitted,

FAY, SHARPE, FAGAN, MINNICH  
& McKEE, LLP

A handwritten signature in black ink, appearing to read "Philip J. Moy, Jr.", is written over a horizontal line.

Philip J. Moy, Jr.  
1100 Superior Avenue  
Seventh Floor  
Cleveland, Ohio 44114-2518  
(216) 861-5582

Enclosures (x3)